

AMENDMENTS TO THE CLAIMS

The listing of claims will replace without prejudice, all prior versions, and listings, of claims in the application.

Claim 1 (Currently amended): Turbine farm comprising at least a first turbine (1) and at least a second turbine (2) ~~by means of which for energy can be extracted~~ extraction from a flowing fluid (5), characterised in that ~~when~~ wherein the second turbine (2) is on the lee side of the first turbine (1), under nominal power, the axial induction (a) of the first turbine (1) is lowered with respect to the second turbine (2), ~~to reduce turbulence mainly at the location of the at least second turbine by~~ turning the blade angles of a rotor of the first turbine towards a feathering position.

Claim 2 (Cancelled)

Claim 3 (Currently amended): ~~The turbine~~ Turbine farm according to one of the preceding claims, characterised in that of claim 1 wherein the axial induction (a) of the first turbine (1) is reduced to about 0.25 or less.

Claim 4 (Currently amended): ~~The turbine~~ Turbine farm according to one of the preceding claims, characterised in that of claim 1 or 2 wherein lowering of the axial

induction (a) is further effected by reducing the speed of revolution ~~and/or turning~~
~~the blade angles~~ of the rotor.

Claim 5 (Currently amended): The turbine ~~Turbine~~ farm according to ~~one of the~~
~~preceding claims, characterised in that~~ of claim 1, or 3, wherein lowering of the
axial induction (a) is effected by reducing the chord of the blades.

Claim 6 (Currently amended): The turbine ~~Turbine~~ farm according to ~~one of the~~
~~preceding claims, characterised in that~~ of claim 5 wherein at least the first turbine
has ~~rotors~~ blades, each ~~rotor with~~ blade having a chord characteristic, $\frac{Nc_r \lambda_r^2}{r}$, of
less than 3.75, where r is a radial distance that runs between 0.5R and 0.8R, where
R is the radius of the rotor.

Claim 7 (Currently amended): The turbine ~~Turbine~~ farm according to ~~one of the~~
~~preceding claims, characterised in that~~ of claim 1 further comprising a control
system is ~~provided~~, wherein this control system sets the axial induction (a) of at
least one first turbine in the farm as a function of the wind direction.

Claim 8 (Cancelled)

Claim 9 (Currently amended): The turbine ~~Turbine~~ farm according to ~~one of the~~
~~preceding claims, characterised in that~~ of claim 7 wherein the control system sets

the axial induction of the first turbine (1) on the basis of a measure for the turbulence determined at the second turbine (2) that is located essentially on the lee side of the first turbine (1).

Claim 10 (Currently amended): The turbine Turbine farm according to one of the preceding claims, characterised in that of claim 7, or 9, wherein the control system sets the axial induction (a) of at least one first turbine as a function of the distance to at least one second turbine located in the lee.

Claim 11 (Cancelled):

Claim 12 (Cancelled)

Claim 13 (Currently amended): The turbine Turbine farm according to one of claims 7 to 12 characterised in that of claim 9, or 10, wherein the control system optimises the farm performance measured in terms of maximum yield and/or minimum loads by adjusting the axial inductions (a) of individual turbines.

Claim 14 (Currently amended): The turbine Turbine farm according to Claim 13, characterised in that of claim 13 wherein the control system is self-learning.

Claim 15 (Currently amended): ~~The turbine~~ Turbine farm according to one of the above claims of claim 1, wherein at least one wind speed at least one first turbine, essentially located on the windward side of the farm based on the dominant wind direction, differs in terms of axial induction from at least one second turbine, essentially located on the lee side of the farm, by on average more than 0.05.

Claim 16 (Cancelled)

Claim 17 (Currently amended): ~~The turbine~~ Turbine farm according to one of the above claims, characterised in that of claim 1 wherein the axial force of the entire farm is reduced such that the power of another farm located in the lee is increased.

Claim 18 (Currently amended): ~~The turbine~~ Turbine farm according to one of the above claims, characterised in that of claim 1 wherein the fluid is water and the turbines are water turbines that extract energy from a flow of water.

Claim 19 (Currently amended): Method for a turbine farm comprising at least one first turbine (1) and an at least second turbine (2) ~~by means of which~~ for energy can be ~~extracted~~ extraction from a flowing fluid (5), ~~characterised by wherein~~
lowering the axial induction (a) of the first turbine (1) with respect to the second turbine (2) when the second turbine (2) is on the lee side of the first turbine (1), under nominal power, ~~to reduce turbulence mainly at the location of the at least~~

second turbine by turning the blade angles of the rotor of the first turbine towards a feathering position.

Claim 20 (Currently amended): Design software for a turbine farm comprising at least a first turbine (1) and at least a second turbine (2) ~~by means of which~~ for energy can ~~be extracted~~ extraction from a flowing fluid (5),
wherein the design software is able to calculate a favourable installation and a favourable method for the turbine farm,
~~characterised in that~~ wherein the software is able to
- add guiding elements to the installation, and/or where turbines have a guiding function, and
when the second turbine (2) is on the lee side of the first turbine (1), under nominal power, the axial induction (a) of the first turbine (1) is lowered with respect to the second turbine (2) ~~to reduce turbulence mainly at the location of the at least second turbine~~ by turning the blade angles of the rotor of the first turbine towards a feathering position, to calculate the influence thereof on the turbine farm.

Claim 21 (Currently amended): Control software for a turbine farm comprising at least a first turbine (1) and at least a second turbine (2) ~~by means of which~~ for energy can ~~be extracted~~ extraction from a flowing fluid (5),

wherein the control software is able to determine at least one of meteorological parameters comprising wind speed and wind direction, temperature distribution and stability of the atmosphere

and to determine and set the power of the turbine farm as a function of at least one of parameters that can be set, comprising axial induction, speed of revolution, the rotor blade angle, angle of inclination, circulation scale and positions of the turbines,

~~characterised in that,~~ wherein the control software is able

when the second turbine (2) is on the lee side of the first turbine (1), under nominal power, to lower the axial induction (a) of the first turbine (1) with respect to the second turbine (2) by turning the blade angles of the rotor of the first turbine towards a feathering position ~~to reduce turbulence mainly at the location of the at least second turbine by setting at least one of the parameters that can be set.~~

Claim 22 (Cancelled)

Claim 23 (Currently amended): Control system for a turbine farm comprising at least a first turbine (1) and at least a second turbine (2) ~~by means of which~~ for energy can ~~be extracted~~ extraction from a flowing fluid (5), ~~characterised in that~~ wherein the control system is able, when the second turbine (2) is on the lee side of the first turbine (1), under nominal power, to lower the axial induction (a) of the first turbine (1) with respect to the second turbine (2) ~~to reduce turbulence mainly at the~~

location of the at least second turbine by turning the blade angles of the rotor of the first turbine towards a feathering position.

Claim 24 (Currently amended): The control ~~Control~~ system according to Claim 23, ~~characterised in that~~ wherein the control system sets the axial induction of at least one first turbine in the farm as a function of the wind direction.

Claim 25 (Cancelled)

Claim 26 (Currently amended): The control ~~Control~~ system ~~according to~~ of Claim 23 or 24, provided with control software ~~according to Claim 21~~ wherein the control software includes at least a first turbine and at least a second turbine for energy extraction from a flowing fluid,
wherein the control software is able to determine at least one of meteorological parameters comprising wind speed and wind direction, temperature distribution and stability of the atmosphere
and to determine and set the power of the turbine farm as a function of at least one of parameters that can be set, comprising axial induction, speed of revolution, the rotor blade angle, angle of inclination, circulation scale and positions of the turbines,

wherein the control software is able when the second turbine is on the lee side of the first turbine, under nominal power, to lower the axial induction (a) of the first turbine with respect to the second turbine by turning the blade angles of the rotor of the first turbine towards a feathering position.

Claim 27 (Cancelled)

Claim 28 (Cancelled)

Claim 29 (Currently amended): Turbine provided with control system ~~according to~~
~~Claim 23~~ wherein the control system includes at least a first turbine and at least a second turbine for energy extraction from a flowing fluid, characterised in that the control system is able, when the second turbine is on the lee side of the first turbine, under nominal power, to lower the axial induction (a) of the first turbine with respect to the second turbine by turning the blade angles of the rotor of the first turbine towards a feathering position.